

NEON STRIKERS

Project Shortcomings and Challenges

A candid account of obstacles encountered during development, mid-project team restructuring, and how the team adapted.

Authored by: Louis Flores

Technical Lead & Documentation — Neon Strikers

Florida International University — Spring 2026

1. Introduction

This document provides a candid account of the shortcomings, challenges, and structural obstacles encountered by the Neon Strikers development team during the Spring 2026 capstone semester. It is written with the intent of being honest and constructive, offering transparency about what went wrong, why it went wrong, and how the team responded. Future teams and course instructors may find this useful as a reference for understanding the project's trajectory.

This document should be read alongside the main project documentation. Where the main documentation focuses on what was built, this document focuses on what was difficult and what was lost.

2. Team Structure and the Departure of the Project Lead

2.1 Original Team Configuration

At the start of the semester, the Neon Strikers team was composed of four members:

Team Member	Original Role	Responsibilities
Louis Flores	Developer / Documentation	Technical documentation, sprint artifacts, developer support
Brian Mesa	Developer	Core Unity implementation, gameplay systems
Fabienne Olibrice	Developer	Supporting development, UI elements, testing
Mike Niedz	Project Lead / Design	Project vision, design direction, team coordination, creative lead

With four members, the team had a functional division of labor: Mike provided the overall creative direction and project management backbone, while Brian and Fabienne handled implementation and Louis handled documentation and support. This configuration had worked well through the early sprints.

2.2 Mike Niedz's Departure

During the middle of the semester, Mike Niedz departed from the project due to conflicts with the capstone presentation requirements. These scheduling conflicts made continued participation impractical, and Mike officially left the team at the point when Sprint 3 was underway.

The departure was not the result of interpersonal conflict or failure of effort on Mike's part. It was a logistical incompatibility between his personal schedule and the commitment the project demanded at that stage of the semester. However, the impact of his leaving was significant and extended well beyond simply losing a headcount.

2.3 What Was Lost Beyond a Team Member

Mike's departure created two distinct voids that were more difficult to fill than a simple workload redistribution:

2.3.1 Loss of Design Focus

Mike had been the primary holder of the game's design vision. He had formulated the original creative brief for Neon Strikers, defined the aesthetic direction, and maintained the mental model of what the game was supposed to feel and look like as a finished product. This included:

- The visual design language — the neon aesthetic and art direction guidelines
- The intended player experience and moment-to-moment game feel goals
- Level design philosophy and what the arena was supposed to communicate to players
- Sound and atmosphere intentions that had not yet been fully implemented

When Mike left, none of this design intent had been comprehensively written down in a form the team could reference. Much of it existed as verbal discussions, rough sketches, and shared understanding between Mike and the rest of the team. The remaining three members had absorbed varying amounts of this vision, but none of them had the complete picture.

The result was that, from Sprint 3 onward, the team was building without a unified design compass. Decisions that should have been straightforward — what does the arena look like, how aggressive should the physics feel, what is the right balance between readability and visual flair — became discussion items that required the team to reconstruct intent rather than reference a defined standard.

2.3.2 Loss of Project Outlook and Direction

Beyond design, Mike had been maintaining the project roadmap and managing the broader outlook for the semester. He tracked which features were priorities, which were stretch goals, and how the project was tracking toward the showcase deadline. With his departure, this strategic layer was left without an owner.

The remaining team members were heads-down in implementation and documentation work. None of them had been maintaining the same high-level view of where the project stood relative to the original vision. The result was a period of uncertainty at the start of Sprint 3 where the team had to answer the question: what exactly are we building, and what does done look like?

2.4 How the Team Responded

The team did not immediately have an elegant solution. The first step was acknowledging the problem honestly in the Sprint 3 retrospective rather than pretending the departure was trivially absorbed. From there, the team took the following concrete actions:

2.4.1 Brian Mesa Assumes Developer Lead

Brian Mesa stepped into the Developer Lead role, taking primary ownership of the Unity implementation and serving as the de facto technical decision maker for the game itself. This was a natural transition given that Brian had already been doing the bulk of the hands-on Unity work. The expanded role meant Brian also took on responsibility for making design calls in the absence of a dedicated design lead.

This transition worked well technically but came with a cost: Brian was now making both implementation decisions and design decisions simultaneously, without dedicated time for design thinking. Some of the inconsistencies in the final product's game feel can be traced back to this reality — design choices were being made pragmatically, in the moment, by someone under implementation pressure rather than deliberatively by someone whose job was to think about the whole picture.

2.4.2 Louis Flores Assumes Full Documentation Responsibility

With the team reduced and Brian focused on development, Louis Flores took on sole responsibility for all technical documentation across the remainder of the project. This included:

- All sprint review documents
- All sprint retrospective documents
- All daily scrum records and meeting minutes
- The comprehensive project documentation package

- This shortcomings document
- The wishlist and future work document
- Testing artifacts and evaluation records

The documentation workload, which had been intended to be shared across the team with Mike coordinating, became a parallel track that Louis managed independently alongside any development support contributions. This was sustainable but came with trade-offs: time spent on documentation was time not spent on development support, and vice versa.

2.4.3 Scope Reassessment

During the Sprint 3 retrospective, the team conducted a deliberate scope reassessment. Features that had been planned with a four-person team in mind were evaluated against the reality of a three-person team carrying divided responsibilities. Several items were moved to the wishlist:

- A more polished character selection screen
- Additional arena variants
- A full audio design pass with original music
- Expanded combo system with more attack types

The core game loop, visual aesthetic, and showcase readiness were preserved as non-negotiable priorities.

2.5 Honest Assessment

In hindsight, the team's biggest structural vulnerability was the concentration of design ownership and project outlook in a single person without a documented design brief or shared roadmap artifact. A project with four or fewer members has very little redundancy. When any individual holds a category of knowledge or responsibility without backup, their departure creates a gap that cannot be filled simply by redistributing hours.

The team adapted as well as could reasonably be expected given the circumstances. Brian and Louis stepped into expanded roles with professionalism, and the project delivered a functional, demonstrable product at the showcase. But the absence of a design lead is visible in the final product in ways that more time, better documentation habits, and a more distributed design process could have mitigated.

3. Additional Challenges

3.1 Physics Tuning Without Structured Feedback

Without a dedicated design lead to define target game feel, physics tuning was done iteratively by the development team. This is a valid approach, but it was hampered by the fact that the team was also the primary tester. Developer intuition about what feels right is different from player intuition, and this gap only became visible at the showcase when participants unfamiliar with the game found the physics confusing or inconsistent.

3.2 Testing Depth Limitations

The team conducted honest internal testing, but the test case coverage was weighted toward happy paths. Edge cases — simultaneous death, frame-perfect inputs, specific platform geometry interactions — were not systematically covered. The showcase surfaced a number of bugs in these edge cases that structured testing would have found earlier.

3.3 Documentation Debt

Because Mike had been the informal coordinator of documentation planning, his departure created a brief period of documentation debt where sprint records fell behind. Louis caught up on this debt but some records from the mid-semester transition period are less detailed than the earlier and later sprint records.

4. Recommendations for Future Teams

The following recommendations are drawn directly from the challenges described in this document:

- Document the design vision early and explicitly. Write a design brief or game design document at the start of the project. It does not need to be exhaustive, but it should capture the aesthetic goals, the player experience targets, and the core design principles. This document should be accessible to every team member and should be maintained as a living reference throughout development.
- Distribute knowledge deliberately. Identify which knowledge areas are concentrated in a single person and take proactive steps to spread that knowledge. Even if one person leads a domain, others should have enough understanding to continue if that person becomes unavailable.
- Maintain a living project roadmap. A shared document that tracks priorities, stretch goals, and the path to the final deliverable should be owned and updated collectively, not informally managed by one person.
- Conduct playtest sessions with non-developers as early as possible. Internal testing is necessary but not sufficient. The type of bugs and usability issues that real users introduce are qualitatively different from what developers test for. Even one informal session with external players early in the semester would have surfaced valuable feedback earlier.
- Have an explicit transition plan in your risk registry. Acknowledge from the beginning of the project that team member departure is a real risk, and identify who would absorb what responsibilities if any given person became unavailable.

5. Closing Statement

The Neon Strikers team delivered a real, playable game under genuine adversity. The loss of a project lead mid-semester is a significant event, and the team's ability to reorganize, redistribute responsibilities, and maintain forward momentum reflects well on everyone who remained. This document is not written to assign blame or minimize achievement — it is written to be honest about what was hard so that future teams and future versions of this project can benefit from what was learned.

The bugs, gaps, and unfinished ideas described here are not failures. They are the natural output of a constrained-resource creative project. They are also the starting point for the next team, documented in the Wishlist and Future Work document.